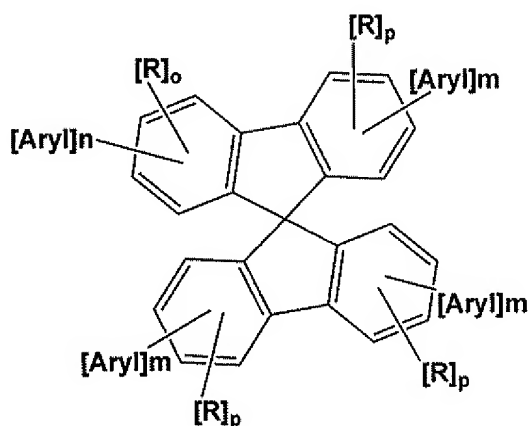


# AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An organic electroluminescent device comprising an anode, a cathode and at least one emission layer comprising at least one matrix material which is doped with at least one phosphorescent emitter, wherein at least one hole blocking layer is incorporated between the emission layer and the cathode and comprises at least one compound of the formula



(Formula 1)

wherein

Aryl is the same or different at each instance and is an aromatic or heteroaromatic ring system which has from 1 to 40 aromatic carbon atoms and may be substituted by one or more R radicals;

R is the same or different at each instance and is H, F, Cl, Br, I, NO<sub>2</sub>, CN, N(R<sup>1</sup>)<sub>2</sub> or a straight-chain, branched or cyclic alkyl or alkoxy group having from 1 to 40 carbon atoms, in which one or more nonadjacent CH<sub>2</sub> groups may be replaced by  $\text{--R}^1\text{C=CR}^1\text{--}$ ,  $\text{C}\equiv\text{C--}$ ,  $\text{Si(R}^1\text{)}_2\text{--}$ ,  $\text{Ge(R}^1\text{)}_2\text{--}$ ,  $\text{Sn(R}^1\text{)}_2\text{--}$ , O, S or NR<sup>1</sup>, and in which one or more hydrogen atoms may be replaced by F or an aromatic R<sup>1</sup> group, where two or more substituents R or R with aryl may form a further mono- or polycyclic, aliphatic or aromatic ring system;

$R^1$  is the same or different at each instance and is H or an aliphatic or aromatic hydrocarbon radical having from 1 to 20 carbon atoms, where two or more substituents  $R^1$  or  $R^1$  with R and/or aryl may also form a further mono- or polycyclic, aliphatic or aromatic ring system;

n is the same or different at each instance and is 1, 2, 3 or 4;

m is the same or different at each instance and is 0, 1, 2, 3 or 4;

o is the same or different at each instance and is 0, 1, 2 or 3;

p is the same or different at each instance and is 0, 1, 2, 3 or 4;

with the proviso that the sum of  $n + o = 4$  and the sum of  $m + p = 4$ , and with the further proviso that the hole blocking material is not identical to the matrix material, and with the further proviso that aryl does not contain any diazine, triazine or tetrazine group.

2. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein a hole injection layer and/or a hole transport layer and/or an electron injection layer and/or an electron transport layer and optionally further layers are present.
3. (Previously Presented) The organic electroluminescent device as claimed in claim 1 wherein the hole blocking layer contains at least 50% of compounds of the formula.
4. (Previously Presented) The organic electroluminescent device as claimed in claim 3, wherein the hole blocking layer consists only of compounds of the formula.
5. (Currently Amended) The organic electroluminescent device as claimed in claim 1, wherein, for compounds of the formula:

Aryl is the same or different at each instance and is an aromatic or heteroaromatic ring system which has from 1 to 20 aromatic carbon atoms and may be substituted by one or more R radicals;

R is the same or different at each instance and is H, F, ~~Cl, Br, I~~,  $NO_2$ , CN,  $N(R^1)_2$  or a straight-chain, branched or cyclic alkyl or alkoxy group having from 1 to 20

carbon atoms, ~~in which one or more nonadjacent CH<sub>2</sub> groups may be replaced by~~  
 ~~$\text{R}^1\text{C}=\text{CR}^1$ ,  $\text{C}=\text{C}$ ,  $\text{Si}(\text{R}^1)_2$ ,  $\text{Ge}(\text{R}^1)_2$ ,  $\text{Sn}(\text{R}^1)_2$ , O, S or  $\text{NR}^1$~~ , and in which  
one or more hydrogen atoms may be replaced by F or an aromatic R<sup>1</sup> group,  
where two or more substituents R may form a further mono- or polycyclic,  
aliphatic or aromatic ring system;

R<sup>1</sup> is the same or different at each instance and is H or an aliphatic or aromatic  
hydrocarbon radical having from 1 to 20 carbon atoms, where two or more  
substituents R<sup>1</sup> or R<sup>1</sup> with R and/or aryl may also form a further mono- or  
polycyclic, aliphatic or aromatic ring system;

n is the same or different at each instance and is 1 or 2;

m is the same or different at each instance and is 0, 1 or 2;

o is the same or different at each instance and is 2 or 3;

p is the same or different at each instance and is 2, 3 or 4;

in these compounds, the aryl substituent is attached via positions 2 and/or 4, or, where  
present, also via positions 5, 7, 2', 4', 5' and/or 7'.

6. (Currently Amended) The organic electroluminescent device as claimed in claim 5,  
wherein the following applies to compounds of the formula:

Aryl is the same or different at each instance and is composed of phenyl ~~and/or~~  
~~pyridine~~ groups, contains a total of from 5 to 18 aromatic carbon atoms and may  
be substituted by one or more R radicals;

R is the same or different at each instance and is H, F, ~~NO<sub>2</sub>~~, CN, or a straight-chain,  
branched or cyclic alkyl ~~or alkoxy~~ group having from 1 to 10 carbon atoms, ~~in~~  
~~which one or more nonadjacent CH<sub>2</sub> groups may be replaced by~~  $\text{R}^1\text{C}=\text{CR}^1$ ,  
 ~~$\text{C}=\text{C}$ ,  $\text{Si}(\text{R}^1)_2$ ,  $\text{Ge}(\text{R}^1)_2$ ,  $\text{Sn}(\text{R}^1)_2$ , O, S or  $\text{NR}^1$~~ , and in which one or more  
hydrogen atoms may be replaced by F or an aromatic R<sup>1</sup> group, where two or  
more substituents R may form a further mono- or polycyclic, aliphatic or aromatic  
ring system;

$R^1$  is the same or different at each instance and is H or an aliphatic or aromatic hydrocarbon radical having from 1 to 20 carbon atoms, where two or more substituents  $R^1$  or  $R^1$  with R and/or aryl may also form a further mono- or polycyclic, aliphatic or aromatic ring system;

n is 1 at each instance;

m is the same or different at each instance and is 0 or 1;

o is 3 at each instance;

p is the same or different at each instance and is 3 or 4;

in these compounds, the aryl substituent and the substituents R which are not H are attached via position 2, or else via positions 7, 2' and/or 7'.

7. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the compounds of the formula have a total of two aryl substituents which are attached to the spirobifluorene unit either via positions 2 and 7 or via positions 2 and 2', or in that they contain a total of four aryl substituents which are attached to the spirobifluorene unit via positions 2, 2', 7 and 7'.
8. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the glass transition temperature of the compounds of the formula is  $>100^{\circ}\text{C}$ .
9. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the glass transition temperature of the compounds of the formula is  $>140^{\circ}\text{C}$ .
10. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the layer thickness of the hole blocking layer is from 1 to 50 nm.
11. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the hole blocking layer directly adjoins the cathode or an electron injection layer without use of an electron transport layer.

12. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the matrix material is selected from a carbazole, ketone, imine, phosphine oxide, phosphine sulfide, phosphine selenide, phosphazine, sulfone, sulfoxide, silane, polypodal metal complex or oligophenylene based on spirobifluorene.
13. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein the phosphorescent emitter has at least one element of atomic number greater than 36 and less than 84.
14. (Previously Presented) The organic electroluminescent device as claimed in claim 13, wherein the phosphorescent emitter contains at least one element from the group of molybdenum, tungsten, rhenium, ruthenium, osmium, rhodium, iridium, palladium, platinum, silver, gold or europium.
15. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein one or more layers are coated by a sublimation process.
16. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein one or more layers are coated by the OVPD process (organic vapor phase deposition) or with the aid of carrier gas sublimation.
17. (Previously Presented) The organic electroluminescent device as claimed in claim 1, wherein one or more layers are applied by a printing process.
18. (Cancelled)